

ABSTRACT

A cold-cathode tube lighting device according to the present invention uniformly lights a plurality of cold-cathode tubes using a common power source, and maintains the luminance of each cold-cathode tube uniformly in the longitudinal direction thereof at high precision. A first block (1) converts a direct-current voltage (V_i) to one pair of alternating-voltages (V_A, V_B). Since leakage impedances of step-up transformers (5A, 5B) are low, the first block (1) functions as one pair of low-impedance power sources. Each second block (2) is connected to each cold-cathode tube (20). A ballast inductor (LB) stabilizes tube current by resonating with a matching capacitor (CM) during lighting of the cold-cathode tube (20). A combined impedance of the matching capacitor (CM) and a peripheral stray capacitance is matched with an impedance of the ballast inductor (LB), for each cold-cathode tube (20). Since a delay circuit (7) shifts phases of two pulse waves (P_1, P_2) with respect to each other, a phase difference between the alternating-voltages (V_A, V_B) is shifted from 180° .